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ABSTRACT

The purpose of this paper is to provide information on child psychology and child development which could be useful to persons planning interpretive programs for children in public parks and recreation areas. Aspects of physical, cognitive and social developmental processes in children of different ages are described briefly and specific examples are given relating these concepts to park programs. (MP)

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CHILDREN'S INTERPRETATION:

A Discovery Book for Interpreters

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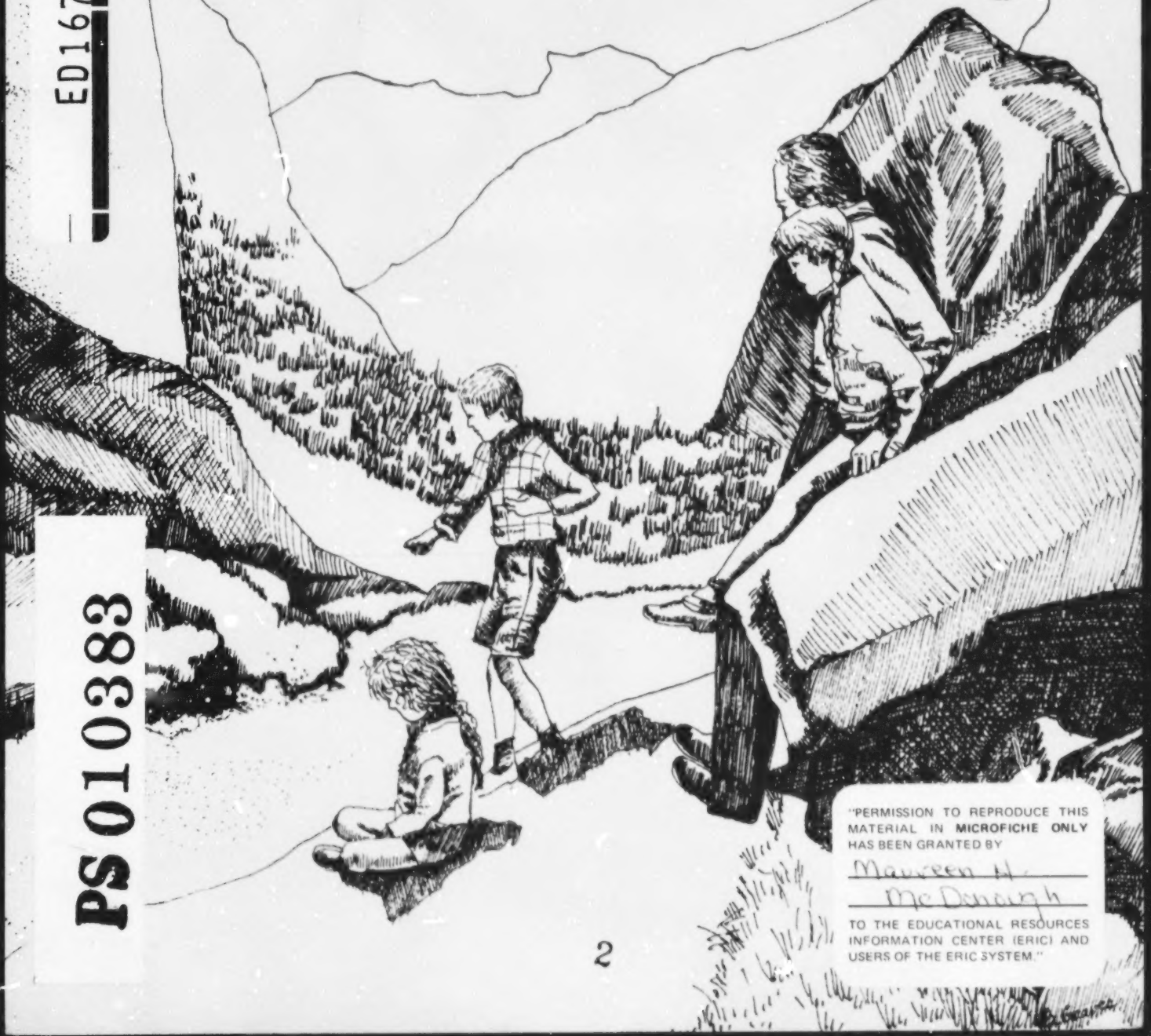

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CHILDREN'S INTERPRETATION:

A DISCOVERY BOOK FOR INTERPRETERS

by

Gary Machlis and Maureen McDonough

Editing and Design: Shirley A Scott
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"It is the supreme art of the teacher to awaken joy in creative expression and knowledge."

Albert Einstein

PREFACE

The Sociology program of the University of Washington Cooperative Park Studies Unit is responsible for the acquisition of information about human use patterns within public parks, especially areas managed by the National Park Service. Our initial efforts focused upon description of the people who use parks, noting the diversity of park- goers present in an area at any one time.

Having identified the diversity of visitors in parks as part of our research activities, we recognized the need to prepare a series of reports which would highlight the information obtained on special clientele groups, while drawing attention to the implications for interpretive services which might be developed for these people.

The first handbook in the series was entitled *Interpretation for Handicapped Persons* by Jacque Beechel, and it became an impetus for this second handbook, which is also concerned with the application of social science information to interpretation. It is a culmination of our work with children during the past several years. Gary Machlis and Maureen McDonough have synthesized some of what we have learned, drawn material from other authors and integrated this knowledge into a series of examples and applications for you, the interpreter. We hope the information about children will be put to work in the development of effective and exciting interpretive programs for them.

Donald R. Field
Regional Chief Scientist
Pacific Northwest Region
National Park Service

INTRODUCTION

Traditionally, children have been part of the interpreter's audience. They seem always present in the front row during an evening campfire and right behind us on our guided walks and tours. Interpretation for children is nothing new, yet this guide is called a "discovery book" for interpreters. What is it, then, that we have discovered?

Basically, it is the realization that "children" is perhaps too broad and general a term for the modern interpreter. Diversity is a key characteristic of park visitors and interpretive audiences and this is especially true of the visitor group known as children. The purpose of this guide is to share with you information about children and to look at this information through the eyes of an interpreter. Much literature is available on child psychology and child development, but what does this information mean for interpreters who work with children and how can it be incorporated into the interpretive planning process?

Our method will be to discuss a conceptual approach for better understanding children and some of their behavior. Following this, you will find application of that material in several ways. Park managers and different interpreters have varying philosophies, finances and needs in regard to types of programs. Some prefer to produce materials, others programs, and others prefer a mix. Our objective is to demonstrate how a sound understanding of children can be applied to the development of all types of interpretive experiences rather than to advocate any one approach.

This is a discovery book. We hope our ideas will spark your ideas and stimulate your imagination. Children are unique and interpretation can be fun. Putting the two together in a thoughtful way can be a very rewarding experience.

PART I: THE IDEAS

One reason there is a great deal of diversity in the interaction of people with their environment is because there is a great deal of diversity in people. This diversity doesn't

arise from age or sex or height alone, but from a complex system of factors operating on people. To understand the behavior of any particular group of people, it's necessary to look at the important influences on their behavior.

Historically, children in western civilization were perceived simply as small adults in such matters as manners and responsibility. Socially they differed from adults only in the sense of economic dependence. This perspective has been substantially altered, partially due to psychological, physiological and sociological research in child development which has shown that children are fundamentally different from adults in their perceptions of the world and their physical capabilities. (See recommended reading for specific references on historical perspective).

A major key to understanding child behavior lies in the recognition that children grow and are growing through relatively sequential developmental phases. These developmental processes are a primary influence on the diversity and range of children's behavior. A sound understanding of child development and behavior is essential to effective interpretive interaction with children. For example, because children at different ages are in varying phases in the development process, there is variation in their needs, interests, capabilites, etc. Interpreters can and should look upon these variations as unique opportunities for positive and effective interaction rather than as limitations.

The following material describes in more detail the varied aspects of physical, cognitive and social developmental processes in children and their pertinence to interpretation. There is no single source for the information presented in the text and tables. It represents a review and summary of research and other materials from a variety of books and journals and our "folk wisdom" about these ideas. See the annotated bibliography and reference list for specific sources and further reference.

Physical Development

Of all the aspects of child development, physical growth and coordination is most influenced by the biological

maturation processes. It is also the area of development most visible to the interpreter. It *is* easy to distinguish short from tall. But there are other aspects of physical development not so readily apparent which are equally important for interpreters to consider. This is particularly true when the interpreter wishes to develop interpretive programs that will involve the participants in activities requiring some degree of motor skill and coordination. A child who is tall relative to his/her peers is not necessarily a more coordinated child.

The development of motor skill and coordination can be divided into two parts. Gross or large motor development involves movement of arms and legs and includes such skills as walking, running, hopping, and jumping. Fine or small motor development is the refined movement of smaller body parts like the tongue, wrists and fingers. It includes skills such as using the hands to pick up objects and manipulate tools, for example, crayons and spoons. It also includes skills like tiptoeing and eating. Gross motor skills *generally* precede fine motor skills. But because children are growing and their body proportions are continually changing, achievement of motor coordination is a process of continual readjustment.

As is true of all development, physical development operates along a continuum with apparent regularities at generalized age levels. Interpreters should use these regularities at generalized age levels to help children enjoy positive learning experiences. Sometimes a new approach based on knowledge of the stages of physical development will accomplish your goal when a previous approach hasn't worked. Characteristics of physical development are discussed below and summarized in Table 1.

Pre-school children are very energetic and active, making it difficult for them to remain still for long periods of time. Young children *need* to move because this is a central way they learn about their world. This is one reason why slide talks for pre-schoolers are generally ineffective. But if the slides are accompanied by music rather than words and the children are encouraged to shout out the names of the animals, plants, and objects they recognize, and are allowed to scoot around on the floor, slides can work as an introductory or rainy day device.

Preschoolers are involved in a rapid period of growth which

begins to slow down about the age of 5. Because of this, height can be deceiving among children of this age! Neither fine nor gross motor coordination is well-developed in this age group. It is difficult, for example, for preschoolers to maintain a hold on objects. Giving them bird eggs to hold during a talk is potentially frustrating for the children and dangerous for the eggs. But allowing them to hold a nest with the eggs in it would alleviate the problem.

TABLE I

GROWTH AND COORDINATION OF CHILDREN AT DIFFERENT AGE LEVELS

	PRE-SCHOOL	SCHOOL AGE	PRE-ADOLESCENT	ADOLESCENT 12-14	ADOLESCENT 15-18
GROWTH	Growth rapid but slowing down. Abundant energy, active movements.	Steady, Continuous rate. Less Rapid than that of just older or younger children.	Steady, continuous rate. Sometimes pre-adolescent spurt in growth. Variations in size at same age begin. Growth makes great demand on energy.	Rapid growth erratic, tumultuous. Sudden increase in height and weight.	Reach full physical maturity. Girls are more mature than boys of same age.
COORDINATION	Poor	Activities calling for precise coordination, such a close eye work, should be avoided. Activities involving large muscles and large movements should be engaged in. Large tools should be used.	Ability to coordinate increases. Small muscle activities may begin, while large muscle activities continue Frequently the progress of coordination is arrested by clumsiness and awkwardness. Some have coordination; some not.	Ability to coordinate increased. Still have periods of clumsiness and awkwardness. Some may be more advanced than others, depending on degree of physical development.	Perfection of activities requiring fine coordination, such as those that develop skill in crafts, diving, folk dancing, etc.

Growth in school-age children (5-9 years) is much less rapid and sporadic than in older or younger children. Children tend to be more uniform in size in this age group. Gross motor coordination is much better developed but fine motor

coordination is just beginning. They are not so likely to drop objects but activities that involve large muscles and large movements should be encouraged. Large materials and tools should be used. Clumsiness with more precise tasks should be viewed with patience rather than frustration. Milking a cow on a historic farm would be an exciting learning opportunity but children at this age should not be expected to hit the milk pail! When a child holds a snake during your reptile talk, be there to help him/her!

Movement and activity are also important in this age group. Their attention span has increased but not significantly. Interpreters should play games that demonstrate concepts to children rather than talking directly about the concepts.

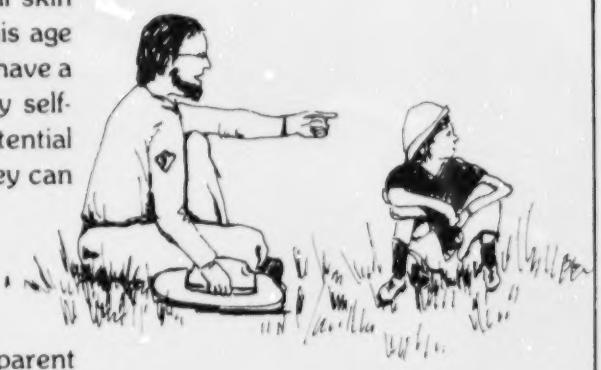
Pre-adolescents (10-12 years) are beginning to devote a lot of body energy to growth. Variations in size begin to appear among children of the same age. But, more importantly, physically this age group tires very easily. Outdoor experiences of several hours duration may exhaust them completely. It's better to plan shorter activities with rest times in between, so that the children will not become irritable and lose attention.

Motor coordination varies considerably in pre-adolescent children. Coordination is generally increasing, but there are frequent periods of clumsiness and awkwardness. Fine motor coordination is beginning to appear, as well as a concurrent interest in developing individual skills. Use of small muscles can and should be encouraged with great patience.

Early adolescents (12-14 years) are involved in a period of very rapid growth in height and weight which can cause them difficulty in large muscle coordination. Balance while moving is the main problem area. Rapid growth causes rapid changes in body proportions and hence, a chance in the body's center of gravity. Fine motor coordination increases significantly but may be variable due to developmental differences. Try activities that involve some individual physical skills but beware of the balance factor. Small muscle coordination may permit use of old logging tools but uncertainty in sense of balance may make axe-swinging problematic!

Adolescents (15-18 years) are in the process of reaching full physical maturity. Fine coordination is perfected so they are capable of learning highly coordinated skills and performing

tasks such as folk dancing, crafts, bird and mammal skin preparation, etc. Be aware, though, that people in this age group, although physically mature, do not necessarily have a strong self-concept yet. Therefore, they may be very self-conscious about themselves and their skills and/or potential capabilities to do something they are asked to do. They can be easily embarrassed.



Cognitive Development

Cognitive or mental development is not as readily apparent to the observer as is physical development. But it can be the most crucial aspect of children's growth processes for interpreters to be aware of because it effects, in an essential manner, the way a child perceives the world around him/her. For a long time in western civilization, it was believed that mentally children were mini-adults who, although lacking physical maturity and social experience, thought about the world in the same way as their elders. Learning was basically perceived as a process of imitation.

The work of Swiss psychologist, Jean Piaget, has cast doubt upon the small adult view of children's thought processes. He has demonstrated that children perceive the world in a fundamentally different way than adults and that their perceptions, understandings and thought processes are dependent on their stages of cognitive development. In essence, children are "cognitive aliens" with respect to adults. What you say to a child and what the child perceives may be two totally different things, depending on the thought processes at the child's disposal at that time. Awareness of differential cognitive processes is necessary for effective interpretive communication with children.

According to Piaget and other structural-developmental theorists, human beings grow through a multi-stage process of cognitive development. These stages roughly correspond to age. Children at earlier developmental periods cannot perform certain mental tasks because the types of thought processes required are not yet in their cognitive repertoire. Entry into a new period depends on the capacity to process information in certain ways, which in turn depends upon physical maturation and experience. Physical maturation, or

the organized growth of the body, is a major influence at earlier stages of development where the age of transition from one stage to another is less variable. Later, experience (interaction with the environment) becomes more influential on the time of stage transition.

Although the sequence of ordering of the stages is not variable, there is some variation in the ages of transition from stage to stage. Cognitive growth can be accelerated to some extent by providing extensive experiences and opportunities for the child, but there *are* limits to this process which are imposed by brain development and other physical factors. In addition, children may straddle two stages of development at once. In other words, certain cognitive processes may be more advanced than others in a particular individual. A young adolescent, for example, may be capable of abstract thought with respect to some information but not all information.

Learning is an *active* process. Children acquire the ability to think in new and more complex ways through active interaction with their environment. Interpretation for children can be most effective by taking advantage of this very fundamental notion.

At the beginning of each stage of cognitive development children are not capable of the operations typical of that stage but develop these capacities through time. The four periods or phases of cognitive development are:

1. Early childhood (0-2 years)

Key Concepts

EXPLORATION OF ENVIRONMENT
LEARNING IS ACTIVE
NOT THINKING; JUST SENSING

This period of development doesn't really involve thinking; just *sensing*. Because of this, learning is a very active process of *exploration* of the immediate environment. Children at this level need to interact directly with everything in order to "know" it. They don't remember objects in the sense of being able to think about them when they are not present but they do begin to recognize objects encountered before. Older children in this age group also begin to acknowledge the existance of objects when they are removed from sight.

Interpreters rarely interact with this age group except in family interpretation, but those who do should encourage active, physical interaction with the environment being interpreted.

2. Pre-school (2-7 years)

Key Concepts

LIKENESSES AND DIFFERENCES
SOME CLASSIFICATIONS
CANNOT REVERSE OR CONJECTURE
SENSES ARE IMPORTANT
BEGINNINGS OF INTUITIVE THOUGHT

Children in the preschool or pre-operational stage are beginning to develop some cognitive skills. They develop the capacity for symbolic thought or, in other words, the ability to let an object or vocal sound stand for something else. This, of course, is the beginning of language! Because of this developing ability, pre-schoolers can begin to tell that some objects are *alike* and that one word may represent a whole group of things. For example, every dog or boy or girl encountered is not a new object. It logically follows that children of this age are developing *classification* skills. But these abilities are very rudimentary in preschoolers. They know that one snake is like another snake and one turtle is like another turtle, but it is beyond their cognitive skill to comprehend that snakes and turtles are reptiles.

This is also the time when intuitive thought begins to appear. Intuitive thought is a process of knowing something by intuition or immediate understanding without the conscious use of reasoning. The major evidence of this is that, when presented with a statement that may be too complex for comprehension, a preschooler will get a general idea based on words or concepts they know and will fill in the rest with something that seem s to fit. For example, an interpreter may tell a group of preschoolers that "buffalo were of great worth to the Indians." The concept of "worth" is too abstract for children of this age group. They will not disregard the entire statement, nowever. Rather, they will interpret the statement in their own terms, and knowing that "great" is often used

with "big" to mean "very large," the preschooler might say that Indians thought the buffalo were big; an interpretation totally different from the intent of the interpreter.

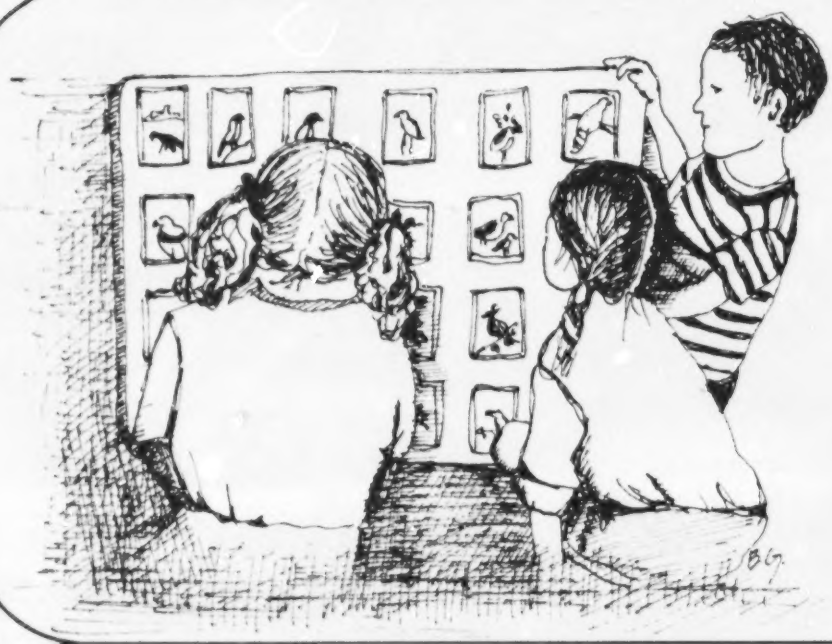
Finally, preschoolers are not able to *reverse* their thought processes. Once something has taken place, an operation has been performed or an effect noted, they cannot revert back to the starting point. In their perception, things have *irreversibly* changed. He/she cannot negate or compensate for something that has already happened. A classic example involves weights on a scale. A three ounce weight is added to the left side of a balance which already has a one ounce weight on each side. The question posed is "How can you balance the scale again?" Most older children will suggest removing the three ounce weight or adding one to the other side. They are able to negate or reverse the original act or effect. Preschool children remain puzzled by this problem. Another example might involve an interpreter showing a group of preschoolers a bird nest with three eggs. He/She says that yesterday there were 5 eggs and it's likely that a local snake or a racoon had eggs for dinner. If the children are asked how the mother bird might fill up her nest again, they will never answer "by laying two more eggs", because their cognitive repertoire doesn't allow them to mentally negate the loss of two eggs and come back to the starting point of a nest with 5 eggs.

3. Elementary school (7-11 years)

Key Concepts

CLASSIFICATION
ORDERING
CONSERVATION
REVERSIBILITY
INTERNAL MANIPULATIONS WITH CONCRETE DATA
INDUCTIVE THINKING
INCREASING INTEREST SPAN

Elementary school children develop several significant thought processes. They begin to *classify* objects in a much broader way than before. Objects that appear unlike each other can be grouped into broad classes. Boys and girls are children. Snakes, turtles and dinosaurs are reptiles. The



ability to order objects in a series also develops. Reversibility, discussed earlier, becomes a cognitive tool for elementary school children.

An important development in this age group is the ability to *conserve* qualities like number, weight, and quantity through changes in shape or position. Up until this time, when objects are moved, rearranged or changed in shape, a child believes that quantity has changed. A snake is perceived as being longer when uncoiled than when coiled and sleeping. Development of conservation abilities, or the ability to observe constancy across change, is crucial.

The reason elementary school children develop such a variety of thought processes is that they have become able to *internally manipulate* information. They can classify and order objects in their minds without overt action. They are also able to concentrate on two aspects of something at the same time and hence, can see that an object can belong to two or more classes simultaneously. For example, they understand that a person could be both a farmer and a Floridian at the same time.

BUT a child in this stage of development can only manipulate *concrete* information about concrete, real objects. Purely verbal or abstract concepts such as "conservation of natural resources," "millions of years," or

"conflict" are usually not comprehended in the way that the interpreter intends. An interpreter may be discussing conflict between the North and South during the Civil War in its most abstract sense (i.e., a long term buildup of hostilities over states rights, slavery, etc.) but elementary school children will be perceiving concrete physical conflict.

Finally, children at this level are capable of *inductive reasoning*. That is, they can draw conclusions from concrete things they have observed. For example, they are capable of making a series of observations about animal homes in a particular area and then generalizing to all animal homes in that area.

4. Junior High and High School (12-18 years)

Key Concepts

ABSTRACT THOUGHT PROCESSES
CONCERN FOR REASONS AND PROOF
DEDUCTIVE THINKING

Adolescents make some significant advances in intellectual activity. They can think on a purely verbal and abstract level. This means that they can perform mental manipulations with words and nonconcrete ideas. They can discuss problems or issues and potential solutions because they can separate the

real from the possible. They can also comprehend ideas that are purely abstract and are not perceivable concrete entities.

Adolescents are very much concerned with *reasons and evidence* for statements made by others. This is due to an increasing ability to consider the logical form of a statement as well as the given context. It should be expected that they will demand proof, and in turn, reasoned statements should be expected of them.

Adolescent thought is characterized by *deductive thinking*. Recall that elementary school children are inductive thinkers. They can only generalize from the concrete. Adolescents, however, can generalize from hypotheses, that is they are able to reason from what is possible or potential. There is one caution to keep in mind, however. Movement into the final phase of cognitive development is most dependent on experience, rather than physical maturation; more so than movement into any other cognitive phase. Therefore, the time of onset of this cognitive stage is more variable than that of the earlier stages. Cultural or other differences in experience could limit full development of the capacity for abstract thinking. Interpreters working with adolescents should be aware that not all young people who have reached physical adolescence have fully developed abstract thought processes.

Identity

Like other visitors, children bring to recreation places a variety of backgrounds, personalities and values. They may be of different ages, and vary in their cognitive level or physical development. Some may be "at home" and familiar with park settings; others may be apprehensive in a new environment. *Each child brings to an interpretive encounter an identity that makes him/her unique.* Understanding how these individual identities vary may aid the interpreter in planning for diverse groups of children.

Part of these "identities" may seem obvious, such as height, or sex, or age. Other factors may not be so obvious, yet are important to interpretation. These include:

1. Physical Development

Earlier, we described the process of physical growth during

childhood. For any group, there will be a wide range in the level of physical development. Coordination varies, as does skill level, strength and stamina. Physical ability is important to children's self-image, male and female; in recent years elementary and junior high school females have enthusiastically taken up sports, outdoor activities, and learning physical skills. Programs that allow a range of physical activities, and which consider wide differences in abilities will often be the most successful in obtaining full involvement from children.

EXAMPLE: 11 year olds have a strong desire to learn new physical skills. A living history program that involves mastering pioneer tasks such as log-splitting, plowing, and axe-sharpening might be successful, *if* the skills range from difficult finger tasks (sewing) to easy large movement activities (building a rock fence), and if the children have a choice of activities.

2. Socioeconomic/Education Level

The socio-economic background a child brings to an interpretive encounter is important. Life experiences, basic knowledge of natural phenomena, language, attitudes toward the environment, and rules for conduct vary according to social class. Of these, language and life experiences may represent the major barriers to effective interpretation. To assume that all children will have had certain experiences, and use the same language for their expression, may exclude children from real understanding. This suggests that the interpreter should build directly into his or her programs the background information and terminology required to understand important concepts.

3. Emancipation and Independence

The life-cycle process of leaving home and gaining independence from parents varies greatly from child to child. Interpretive programs present opportunities for such growth, and many children (and their parents) find parks good places to experiment with such experiences. These may be tentative independencies, such as sitting in front during an evening program, or running ahead to a display, vista, or roving interpreter. Nevertheless, they are important social contacts,

as well as interpretive contacts. Since emancipation varies widely, children within a single group may react quite differently to such prospects.

EXAMPLE: An interpreter waits at the trailhead, ready to begin a children's walk. Children disengage from their parents with varying degrees of anticipation, some excited, some apprehensive. The interpreter is careful to explain for the not-so-adventuresome children exactly where they are going, how long the hike will take, what activities are planned, and when they shall return. The anxiety decreases, and the hike begins.

4. Leader Acceptance

The traditional approach to interpretation is based upon the interpreter as leader. He or she selects the topic, format, and often the time and location where interpretation takes place. Children vary widely in their acceptance of leadership and authority, and many children are "turned off" by an interpreter who (consciously or otherwise) chooses to rely on authority rather than to develop genuine respect. The interpreter as leader may not always be the most effective method for organizing a program, and interpreters should consider alternatives.

EXAMPLE: An interpreter at a popular park campground asks the teenagers who are visiting to help develop the slide program for the next evening. Several show an interest, and together with the interpreter they choose topics, and each develops a short presentation. Once a week, the campfire program is given by the visitors.

5. Organizational Experience and Enjoyment of Group Life

Because of universal education in this country, most American children are experienced at group life. To varying degrees, they have adjusted to classrooms, schedules, school rules, teachers and peers. They understand routine and the need for cooperation, and accept group responsibilities. Yet children may have quite different levels of experience in groups other than the classroom or family. Some may belong to church groups, scout troops, clubs or gangs; others may be "loners." Not all children understand group organization, nor do all children enjoy group life.

While some children may approach a team game or crowded museum with enthusiasm, such intensely *social* activities may be difficult for others. Interpreters might plan alternatives to large group activities (quiet games, books to read, one person projects) and have them readily available.

Social Context

Interpretive programs usually take place in social situations, among groups of visitors and interpreters. Many characteristics of these social situations may affect the kind of experience the visitor has. The type of group is one major characteristic. At parks, for instance, children arrive in many kinds of groups - families, school field trips, traveling summer camps, church outings, and in more casual groups of "just kids." Whether a teenager arrives at a trail walk with his/her schoolmates, or as part of a family, special rules of conduct, expectations and group dynamics help characterize the encounter. These characteristics of group situations, we call the "social context." *The social context of participation will help determine the experience.*

Besides group type, other factors to consider are:

1. Group size

Group size is an important factor, as interpreters who have dealt with overcrowded amphitheaters, unwieldly tour and walk groups, and impersonal public address systems well know. For working with children, density (the ratio of space to children) may be just as critical as total size. We know very little about how group size, density and space affect interpretive programs, but common sense suggests that as density increases, programs involving physical activity, individualized learning, and lots of children may become less effective.

Since many interpretive programs are conducted in well-defined spaces (as amphitheater, a trail, or a visitor center), activities may need to be designed around fixed spaces and high densities. As an alternative, the interpreter may want to experiment with programs in non-traditional locales, such as campgrounds, parking lots and open spaces.

2. Environment or Setting

As suggested previously, interpretive programs are closely associated with certain environments. When most visitors arrive at a large amphitheater or a museum, they are well aware of what is to take place, and what behavior is appropriate. So many visitors "interpret" these places as learning environments, that it is easy to assume that all visitors should understand the social setting. This is not the case. Parks, especially, are flexible places, and interpretive programs that can be conducted in non-traditional locations or different times may be effective in reaching many kinds of visitors.

EXAMPLE: In many large campgrounds, the formal amphitheater sits unused during many hours of the day. It is an ideal place for an afternoon program with older children; it is accessible, can be used in many ways, and is a good "meeting place" for teenagers. Use of the environment for such a program may encourage participation in the more general programs held at the amphitheater in the evening.

3. Group Composition

Group composition is important to the social context of interpretation because social groups in parks can vary so widely. Children in one group may have similar identities, while in another they may be of different ages, cognitive

levels, or backgrounds. In fact, most children's groups include adults, and many children's programs are well attended by parents and group leaders. Generally, groups of similar children will be easier to organize than diverse groups. Since the interpreter often has little control over group composition, he or she should plan programs that can be adapted to varying social contexts.

EXAMPLE: A slide presentation is developed for use in a visitor center auditorium. The basic "core" of each presentation is the same, but the interpreter has prepared several conclusions to the presentation. At each program, the interpreter might select a conclusion most appropriate to the group at hand.

Social context changes as groups change, and we have little information about long term trends concerning children as tourists. How many visit interpretive places or attend programs? What kind of group is most common? Is there an optimum size for children's groups that is conducive to effective interpretation?

What interpreters can do is observe, use good judgement, and develop flexible and interesting programs. In the next section, we shall discuss how interpretive diversity might be designed into programs for children.

PART II - APPLICATION

Parks attract a diverse public, and the children involved in interpretive programs can be characterized by differences in cognitive abilities, physical development, identities, and the social context of the children's group. We suggest a working principle for children's interpretation: *The diversity of audience should be matched by diversity of interpretation.* Interpretative programs may need to vary in their *approach, content and organization.*

Interpretive Approaches

An interpretive approach should not be confused with mediums such as films or the written word, or with schedules of interpretive activity. Rather, they are ways of programming built upon three basic modes of human expression: action,

fantasy and instruction. Briefly:

Action. Children often learn by doing. They learn physical skills such as skipping and throwing by imitation and repetition. They want to be able to do things, and are not truly content with being told or shown. An impatient, "Let me do it!" is a signal to the interpreter that his/her interpretive approach is ignoring this important mode.

Fantasy. Perhaps the most powerful and far reaching mode of interpretation is fantasy. It combines experience with imagination and hence allows all children to participate; to the imaginative child there is potential for fantasy within every experience.

Storytelling, puppetry, role playing, poetry; these are excellent ways of communicating, and each is based upon fantasy. Children's fantasy (the imagined) is different, perhaps, than adult fantasy (the desired), and interpreters tend to shy away from the range of human emotions that can be involved. Still, it is surprising how seldom fantasy is openly used in interpretive programs. Fantasy plays such an important role in a child's interpretation of the world, it should be considered as a major approach to interpretation.

Instruction. Instruction is by far the most accepted and expected mode of interpretation. It is the main way we teach children in our schools, and whether it be by slide show, campfire talk or museum exhibit, one-way communication of information is the most prevalent method of interpretation.

For children, these modes are intimately related, with each having strong appeal. The effective interpreter weaves them all together, moving from one mode to the other as the diversity of audience requires.

Content

For youngsters, the importance of information is often directly related to its usefulness.

EXAMPLE: To know how to identify oregon grape may be mildly interesting, but the information "comes alive" when it is made known that the berries can be used to decorate cloth.

In choosing the content of interpretive programs, several key concepts may have strong appeal, as they can easily be linked to children's personal experiences. These might include:

GROWTH AND MATURATION
SOCIAL BEHAVIOR, ESPECIALLY PLAY
FAMILY LIFE, THE ROLE OF CHILDREN
SIZE AND SHAPE (COMPARISONS), LOCOMOTION
TECHNOLOGY, FUNCTION, HOW THINGS WORK

The interpreter who knows the site well and has decided the purpose of his/her interpretive effort, is the best judge of content. What we suggest is that information be chosen that is of interest to children, of value and usefulness, and that can be delivered through several different approaches.

Organization

There are many ways to organize interpretive efforts. We have mentioned that most programs are led by an interpreter and take place in traditional locations of fixed space. Interpreters might experiment with alternative ways of organization, changing location (discussed on page 16), leadership (see page 14), and time to suit a diverse audience. Teenagers, for example, might appreciate a late night program, and an interpretive session during the noon hour, at a large campground, might prove a popular lunchtime event.

There are many different ways of organizing an interpretive encounter: informal seating arrangements; having the interpreter among the audience; combining a slide presentation with a walk or demonstration. The interpreter is encouraged to experiment until an exciting method of organization is found.

Combining interpretive approaches which involve and stimulate, content that is interesting, and an organization that is effective requires skill and creativity. Achieving these goals may require a great deal of prior planning on the part of the interpreter. Given the complexity of children's groups, he or she cannot be expected to utilize all these "tools" in each interpretive encounter.

Likewise, even excellent programs do not always work well. With the best approach, the greatest enthusiasm, and the highest hopes a program may not be successful in reaching a diverse public (or a segment of that public). *The interpreter can, however, plan diversity into any interpretive program.* The benefits of such planning are many:

1. Programs may be more effective, as measured by attendance, involvement, communication of knowledge and understanding, or enjoyment.
2. Programs will vary, and tend to attract repeat visitors and children not attracted to traditional or repeated programs.
3. Planning for diversity usually results in a more organized and flexible program, with less "hassle" for the interpreter

and more interest for the children.

What follows are two examples of how such planning, and the previous ideas on children and children's groups, can be applied.

EXAMPLE 1: Designing a Children's Guide to an Historic Site

In this example, the purpose is to develop a small (and inexpensive) children's guide to a historic site. The site is a popular one. The interpreters are interested in helping children organize their visit, which seems to the staff to be comprised mostly of "running around."

First, we ask several key questions:

1. What age group will the guide benefit the most? For what age ranges should the guide be designed?
2. Can we define the social context of their visits, even if only roughly?
3. What interests children at this site?

By discussion, observation of children's groups, and a brief look at attendance figures, we decide to target the guide for 4th graders, yet make it useful for children approximately 8-12 years old. The children visit in school groups and families. They are attracted to the main courtyard and the steps of a tall tower.

Next, the interpreter lists the information which should be included in the guide, and the concepts which might be interpreted:

1. Map of Historic Site, showing park facilities:
   parking lot
   visitor center
   entrance staff headquarters
   bathrooms
   drinking fountains.
2. Location of tower and safety message about tower steps.
3. Things to do at/during a visit, some suggestions:

Take a walk (show route clearly)

Watch a film (tell when, where; perhaps develop a signal to inform young children when a film is about to start).

Living history demonstration (again, develop a signal for informing young children).

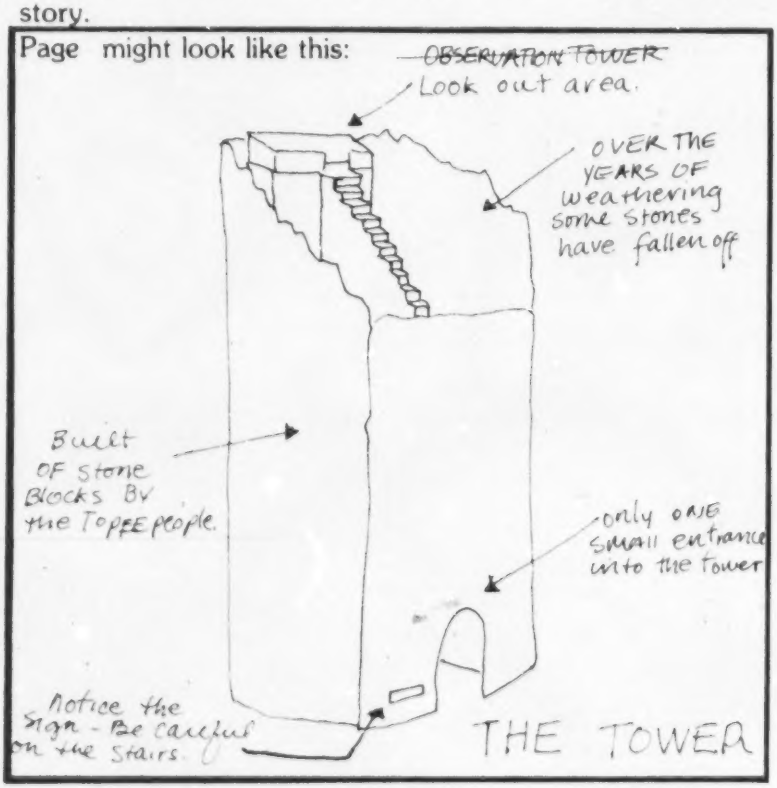
4. Things children as visitors can do to help maintain their park:

Pick up litter (show location of trash cans)
Walk safely on tower steps
Show other children the things to do
Learn about the park, talk with interpreters!
The interpreter also lists concepts which might be interpreted:
Family life at the site (if different cultures, contrast) role of children:

Chores, games, schooling, clothes.
Technology: How the tower was built.

With these lists, the interpreter heads to the library or other sources, to develop the information needed. A rough draft is assembled, trying different approaches until each has its place in the guide:
Action: Things to do section, games children historically played.
Instruction: Safety message and map; how the tower was built.
Fantasy: Life at the site interpreted through a diary or short story.

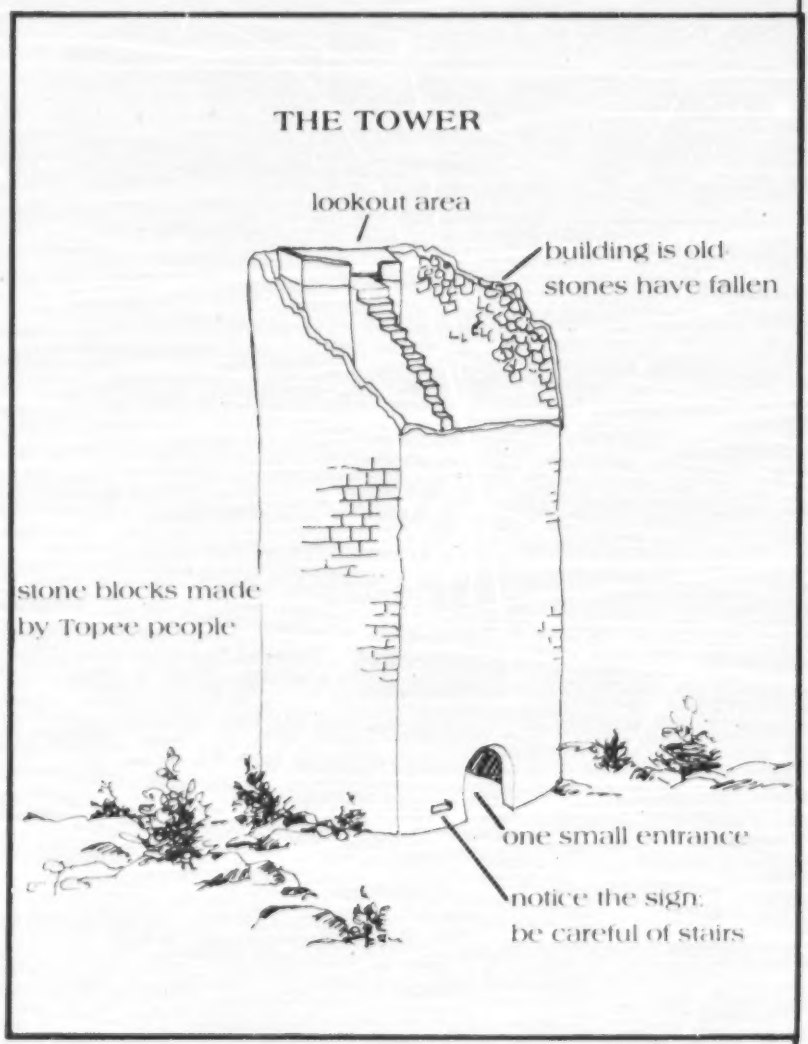
Page might look like this:


~~OBSERVATION TOWER~~
Look out area.
OVER THE YEARS OF weathering some stones have fallen off
Built OF stone Blocks BY the TOPEE people.
only ONE SMALL entrance into the tower
Notice the sign - Be careful on the stairs.
THE TOWER

The rough draft is thoroughly reviewed:

1. Are the concepts appropriate to the cognitive level of the 8-12 year old children? The physical skills? Is the social context considered?
2. Is the information historically and biologically sound?
3. If possible, are all three approaches (action, fantasy, intruction) used?
4. Will the guide be fun?

A final draft of the guide is prepared, and ideally children are given a chance to review. Changes are made and drawings revised. Drawing 1 now looks like this.



Thought is given to the distribution of the guide:
1. Will it cost? How much? By charging a price for the guide, who will be excluded?
2. How will it be distributed to the children? Will it be given/sold to adults as well? Used on site and returned?
3. How can the guide be evaluated? Improved for the next "edition"?

The design, budgeting and production of such a guide is a major effort, and cannot be adequately treated here. Nor can we treat the many ways open to the interpreter for gathering feedback. These are not insurmountable problems, and an excellent guide *can* be produced inexpensively. This example simply suggests that it is possible to use the concept of interpretive diversity in the development of written materials.

EXAMPLE 2 Plan a Children's Walk

The planning process for walks and talks, is more flexible than that involved in the development of materials such as maps, guides and discovery books, primarily due to the absence of necessary financial investment in a distributable, finished product. Interpreters tend to have less lead time for planning walks and talks. Necessary revisions or adjustments may often be made during the actual program.

The planning process begins with the interpreter asking and answering several questions:
1. What is the approximate *age* of the group I will be working with? Will it be a homogeneous age group or will the ages be mixed? This information may be available before the walk but if it's a "come-one, come-all" type of program, the interpreter should be prepared for several eventualities.
2. What is the social context or social organization of the group? In some cases, basic information about group size, type, and place of origin may be available ahead of time. Even knowing that the group has formed on the spot and is only temporary tells something about its social context! An alert interpreter should survey the group when they arrive and make a quick assessment of the situation.
3. What is the topic and rough format of the walk? How should it be adapted to fit the capabilities of the group once the above information is known?

With these questions outlined in his/her head, the

interpreter begins to assess the situation. In this example, the interpreter has noted an abundance of adolescents in the campground and so announces and advertises that the weekly Saturday morning nature program will be for teenagers. He/she now knows the *age* of the group but also knows that most of them will not know each other and have not been together before. The majority of the group will probably be staying in the campground either with peer or family groups.

The general topic of the weekly walk usually centers around forest communities because the campground is situated in a natural area with several different and contrasting ecological communities available within a short walking distance. With the younger children who usually comprise the audience for this weekly walk, the standard format has been a medium-length walk with various stops and the interpreter using a question and answer lecture style.

Now that the interpreter has the basic information in hand, it's time to apply it in terms of organization, content and approach of the upcoming program.

The interpreter knows that, in general, adolescents are a questioning, reason-seeking group and that they are beginning to develop a sense of independence. They have a relatively long attention span.

He/she also knows that adolescents need to interact with adults *as* adults to strengthen this independence, particularly in the sense of leadership acceptance. But the interpreter is aware that the members of the group will be somewhat strange to each other.

Now the interpreter needs to *organize* the program such that it utilizes these facts in a positive and creative way. The interpreter decides that he/she will stick to the explanation of *ecological communities* but will use an *approach* or format that will make the best use of adolescent skills.

Program Format

I. Introductory exercise
- reduces strangeness
- sets an "adult" tone
- sets role of interpreter as supportive member of group rather than leader
- present "problem" to be solved

II. Team activity and exploration
- allows participants to use *their* skills
- exercises basic questioning attitudes
- allows sense of independence and responsibility

III. Joint problem-solving session
- interpreter acts as discussion leader

Everything is planned and any materials or equipment are prepared.

The time has come!! This is a most important moment. The major key to success is a constant alertness to your group and the ability and willingness to think on your feet, notice problems and use the information you have about adolescence to avoid an uninteresting, uninformative program. The attitude of the interpreter toward adolescent visitors should be helpful and supportive rather than rigorous and authoritarian.

Walks and talks are not the only program possibilities for children to which a similar planning process can be applied. Puppetry, games, drama, music, field exercises and experiments, exhibit building and assistance in on-going park projects are just a few areas where good prior planning can be effective.

Remember the importance of planning for *a particular group;* think about the group's age, its physical and cognitive level, and its social context. Apply your knowledge of the *diversity* of children to your decisions about organization, approach and content of your programs.

CONCLUSION

It should be clear from these examples that children's interpretation is hard work. It requires both creativeness and careful preparation. Planning a children's program is a major investment in staff time and effort. Why then, is it so important?

First, children are a significant portion of the visitors to parks, museums, zoos, and other recreation places, and providing for their recreation and enjoyment is a legitimate mission of the agencies that operate such facilities.

Second, children's programs often involve parents, and are excellent vehicles for reaching adult audiences.

Third, interpretive programs can be effective in helping children understand the value of natural areas and cultural facilities; public trusts such as parks can be better managed if all citizens (including children) become involved in their care.

Fourth, children who participate in interpretive activities may do so as adults; such life-long associations strengthen public support for interpretation.

Finally, children's interpretation can be rewarding to the interpreter who approaches his or her craft aware of the challenge stated by Albert Einstein:

> It is the supreme art of the teacher to
> awaken joy in creative expression and knowledge.

We hope the ideas and examples presented here can help in that effort.

RECOMMENDED READING

Aries, Philippe. *Centuries of Childhood: A Social History of Family Life*. New York: Knopf, 1962.

A classic work describing evidence that childhood is a modern invention, particularly in the western world.

Braga, Laurie and Joseph. *Learning and Growing: A Guide to Child Development*. New Jersey: Prentice-Hall, Inc., 1975.

An easily read summary of child development with a particularly good section on physical factors.

Elkind, David. *Child Development and Education: A Piagetan Perspective* New York: Oxford University Press, 1976.

Available in paperback, this is a rather sensitive look at all aspects of child development from the viewpoint of Jean Piaget's theories.

Gorman, Richard M. *Discovering Piaget: A Guide for Teachers*. Charles E. Merrill, Co., 1972.

An excellent description and summary of Piaget's theories and concepts in a simple, workbook form. This short book is also full of examples of how to incorporate these concepts into actual teaching situations which are easily extrapolated to interpretive situations.

Piaget, Jean and B. Inhelder. *The Psychology of The Child*. New York: Basic Books, 1969.

If you are interested in reading Piaget by Piaget, this book deals with the research and thought behind his theories of learning. *Very* heavy reading.

Plumb, J.H. "Children: The Victims of Time," from *In the Light of History*. London: The Penguin Press, 1972.

A good summary of the historical role of children and the causes of modern childhood.

Redl, Fritz. *When We Deal With Children*. New York: The Free Press. 1966.

Excellent and lively discussion of a wide variety of subjects relevant to working with children, especially Part 3 that deals with group dynamics.

Torrance, E. Paul & R.E. Meyers. *Creative Learning and Teaching*. New York: Dodd, Mead & Co. 1970.

Gives concrete methods of developing the skills for creative teaching; many of the examples are applicable to interpretation.

This reference list is a summary of materials that have been useful and exciting to us. There are many other materials about children available. Your local library or bookstore will probably have basic materials on child development as well as ideas for projects and games that can be adapted to meet your purposes and objectives.

Maureen McDonough contributed Part I: The Ideas, and the plan for developing an interpretive walk or talk. Gary Machlis wrote the sections on Identity and Social Context, as well as the design for making a Children's Guide to an historic site.

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